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EXAMINER

LU, KUEN S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/782,691	Applicant(s) HASSAN ET AL.	
	Examiner KUEN S. LU	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-27 and 33-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26,27 and 33-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Action is responsive to the Applicant's Amendment, filed February 21, 2008. It is acknowledged amendments were made to claim 26.
2. Please note Claims 26-27 and 33-40 are pending.

Responses to Arguments

3. The Applicants' arguments filed on filed February 21, 2008, have been fully considered, please see discussion below:

3.1. At Page 5, Applicant argued that Achiwa does not teach communicating with the server to ensure that a duplicate copy of data item is stored on the server prior to deleting the data item to free memory space on the mobile device.

Concerning the above argument, Examiner respectfully submits that Achiwa copies file to storage server before deleting the copy at the client site (See [0054]) and establishing link of the deleted file to the storage server. Considering the deleted file needs to be referenced by the client site via a link pointing to storage server, Achiwa does ensure that a duplicate copy of the file is stored on the server prior to deleting the file from the client. As Examiner agrees that the file is newly copied and the deleted. However, it does not deny Achiwa from the teaching of "communicating with the server over the wireless network to determine if a copy of one or more data items are stored in the server application database". Also please note a data file is a data item.

3.2. At Page 5, Applicant further argued that Achiwa teaches that a file is only stored in

one location.

Concerning the above argument, Examiner respectfully submits that in Achiwa's system, file is stored to both sites during the duration **between the time when** the file is copied to store at the storage server **and the time when** the file is already stored at storage server and then deleted from the client. Furthermore, Mendez synchronizes files between systems and it teaches storing copy of the same file to each of the systems.

3.3. At Page 6, Applicant further argued that Mendez reference does not relate to memory management at all.

Concerning the above argument, Examiner respectfully submits that Mendez teaches a system involving a PDA having local database and memory installed communicates to, via a wireless network, a remote server equipped with a remote database for synchronizing local data with remote data. A complex system as taught for performing said complex functions does involve memory management to some degree. As motivated and as descried in the below rejections under 35 U.S.C. 103(a), it is the combined teaching of the Achiwa and Mendez references, as a whole, provides all teaching for the subject matter as claimed by the instant application, including memory management.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.1. Claims 26-27 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendez (U.S. Patent Application 2003/0097358) in view of Achiwa et al. (U.S. Patent Application 2003/0110190, hereafter "Achiwa").

As per claim 26, Mendez teaches "In a system having a server that is operable to communicate with a mobile device over a wireless network, the server including a server application database for storing copies of data items that are transmitted to the mobile device and the mobile device including a memory subsystem for storing data items on the mobile device" (See Fig. 1 and [0019]-[0021] where PDA having local database and memory installed is communicated to, via a wireless network, a remote server equipped with a remote database for synchronizing local data with remote data), a memory management method comprising:

Mendez does not explicitly teach "determining that additional memory space is needed on the mobile device", although Mendez teaches storage capacity planning by deciding if data elements of search result is voluminous and refining data request for

returning a pre-specified number of data elements which can be simultaneously displayed (See Fig. 4, element 400 and [0032]).

However, Achiwa teaches “determining that additional memory space is needed on the mobile device” (See [0049] where a disk full condition is detected and determined that a minimum available storage is reached and additional storage is needed for the client system).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Achiwa with Mendez reference by extending client storage to server by utilizing server storage for storing client files when needed and maintaining links to the client files stored remotely because both references are directed to storing and retrieving files from both local at the client and remote at the server, and the combined teaching would have equipped Mendez' PDA with an unlimited capacity of storage without the need for accessing remotely stored files differently from accessing local stored files or incurring the expenses of acquiring and maintaining the storage facilities locally.

The combined teaching of Achiwa and Mendez references further teaches the following:

“if additional memory space is needed, then communicating with the server over the wireless network to determine if a copy of one or more data items are stored in the server application database” (See Achiwa: [0049] where a disk full condition is detected and determined that a minimum available storage is reached and additional storage is needed for the client system and, further at [0054]-[0058] where remote server is

consulted if a file has been copied over or copied back for creating or deleting local file link accordingly); and

“if copies of the one or more data items are stored in the server application database, then deleting the one or more data items from the memory subsystem in the mobile device to create additional memory space” (See Achiwa: [0054]-[0058] where remote server is consulted if a file has been copied over and then local copy of the same file is deleted).

As per claim 33, Mendez teaches “In a system having a server that is operable to communicate with a mobile device over a wireless network, the server including a server application database for storing copies of data items that are transmitted to the mobile device and the mobile device including a memory subsystem for storing data items on the mobile device” (See Figs. 1-2 and [0019]-[0021] where PDA having local database and working and persistent memory subsystem installed is communicated to, via a wireless network, a remote server equipped with a remote database for synchronizing local data with remote data), the mobile device comprising:
“a local application database for storing data items for one or more software applications” (See [0029] and [0032]-[0033] where search on local database at PDA is conducted and search terms matching data elements are identified); and
“a communication subsystem configured to transmit and receive data over the wireless network” (See Fig. 1, element 140 and [0028]-[0031] where network communicates

PDA and remote server system for transferring search parameters and returning search result).

Mendez does not explicitly teach “a memory management system configured to determine that additional memory space is needed in the local application database”, although Mendez teaches storage capacity planning by deciding if data elements of search result is voluminous and refining data request for returning a pre-specified number of data elements which can be simultaneously displayed (See Fig. 4, element 400 and [0032]).

However, Achiwa teaches “a memory management system configured to determine that additional memory space is needed in the local application database” (See [0049] where a disk full condition is detected and determined that a minimum available storage is reached and additional storage is needed for the client system).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Achiwa with Mendez reference by extending client storage to server by utilizing server storage for storing client files when needed and maintaining links to the client files stored remotely because both references are directed to storing and retrieving files from both local at the client and remote at the server, and the combined teaching would have equipped Mendez' PDA with an unlimited capacity of storage without the need for accessing remotely stored files differently from accessing local stored files or incurring the expenses of acquiring and maintaining the storage facilities locally.

The combined teaching of Achiwa and Mendez references further teaches the following:

“in response cause the communication subsystem to communicate with the server over the wireless network to determine if a copy of one or more data items are stored in the server application database” (See Achiwa: [0054]-[0058] where remote server is consulted if a file has been copied over or copied back for creating or deleting local file link accordingly), “the memory management system being further configured to delete the one or more data items from the local application database if copies of the one or more data items are stored in the server application database” (See Achiwa: [0054]-[0058] where remote server is consulted if a file has been copied over and then local copy of the same file is deleted).

As per claim 27, the combined teaching of Achiwa and Mendez references further teaches “deleting all data items from the mobile device that have copies stored in the server application database before deleting any data items from the mobile device that do not have copies stored in the server application database” (See Achiwa: [0054] where local client file is deleted after a copy of the file is made to the remote server storage and a link is created locally in place of the deleted file).

As per claim 34, the combined teaching of Achiwa and Mendez references further teaches “The mobile device of claim 33, wherein the memory management system is configured to delete all data items from the local application database that have copies stored in the server

application database before deleting any data items from the mobile device that do not have copies stored in the server application database” (See Achiwa: [0054] where local client file is deleted after a copy of the file is made to the remote server storage and a link is created locally in place of the deleted file).

As per claim 35, the combined teaching of Achiwa and Mendez references further teaches the following:

“a display” (See Mendez: Fig. 2, element 240 is a display on example computer);

“a local search module that causes the mobile device to identify one or more data items stored in the local application database that match one or more parameters, a list of the one or more data items being displayed on the display along with an input field to enable a user to instruct the mobile device to execute a remote search operation” (See Mendez: Figs. 1, element 160, 6-7, [0028]-[0029] and [0032]-[0033] where user inputs search type, search terms and target database for executing the search and search on local database at PDA is conducted and search terms matching data elements are identified, and at Figs. 4, 6-8 and [0028] and [0037] where a form field Remote Directory Information for selecting remote database is displayed and available for user to instruct PDA to conduct remote database search); and

“a remote search module that causes the mobile device to transmit a remote search request to the server in response to the user instructions to execute the remote search operation, the remote search request the one or more parameters, which are used by the server to identify one or more data items stored in the server application database matching the one or more parameters” (See Mendez: Fig. 7 and [0030]-[0031] where searching remote database is

determined, remote database search is conducted based on search terms received by the remote system, data elements matching search terms are identified and displayed on the PDA).

As per claim 36, the combined teaching of Achiwa and Mendez references further teaches “The mobile device of claim 35, wherein the mobile device receives the one or more data items identified from the server application database and displays a list of the one or more data items from the server application database on the display” (See Mendez: Fig. 7 and [0030]-[0031] where searching remote database is determined, remote database search is conducted based on search terms received by the remote system, data elements matching search terms are identified and displayed on the PDA).

4.2. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendez (U.S. Patent Application 2003/0097358) in view of Achiwa et al. (U.S. Patent Application 2003/0110190, hereafter “Achiwa”) as applied to claims 26-27 and 33-36 above, and further in view of Wright, Jr. (U.S. Patent 5,857,201, hereafter “Wright”).

As per claim 37, the combined teaching of Achiwa and Mendez references does not explicitly teach “The mobile device of claim 33, wherein the one or more software applications include an electronic messaging application, the local application database includes an electronic mailbox for storing electronic messages, and the sever-based application database includes a corresponding electronic mailbox for storing a copy of

the electronic messages received by the mobile devices” ”, although Mendez teaches data elements including email addresses at Fig. 10.

However, Wright teaches PDA connecting email server at col. 2, lines 38-42.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Wright with Achiwa and Mendez references because both references are directed to communication between PDA and remote system where each is equipped with database, and the combined teaching of the references would have enhance and improve PDA communication to remote system because email access would have been available for Mendez's PDA at the field. (See Wright: SUMMARY OF THE INVENTION).

As per claim 38, the combined teaching of Wright, Achiwa and Mendez references further teaches “The mobile device of claim 37, wherein the server includes an electronic mail server configured to send and receive electronic messages over one or more computer networks and store received electronic messages in the corresponding electronic mailbox” (See Wright: col. 2, lines 38-42 where PDA connects email server).

As per claim 39, the combined teaching of Wright, Achiwa and Mendez references further teaches “The mobile device of claim 38, wherein the server further includes an enterprise server for forwarding a copy of received electronic messages to the mobile device” (See Wright: col. 2, lines 38-42 where PDA connects email server).

As per claim 40, the combined teaching of Wright, Achiwa and Mendez references further teaches "The mobile device of claim 38, wherein the electronic mailbox in the local application database is synchronized with the corresponding electronic mailbox in the server-based application database" (See Mendez: [0020] where local and remote databases are synchronized and Wright : col. 2, lines 38-42 where PDA connects email server).

References

5.1. The prior art made of record

- A. U.S. Patent No. 5,857,201
- B. U.S. Patent Application 2003/0200282
- H. U.S. Patent Application 2003/0110190

5.2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- C. U.S. Patent Application 2003/0069874
- D. U.S. Patent No. 6,898,591
- E. U.S. Patent Application 2002/0116457
- F. U.S. Patent No. 5,701,461
- G. U.S. Patent Application 2002/0137540

Conclusion

6. Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kuen S. Lu whose telephone number is (571)-272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571)-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KUEN S. LU, /Kuen S Lu/

Art Unit 2167

Primary Patent Examiner

May 31, 2008

/Kuen S Lu/

Primary Examiner, Art Unit 2167